

# Knowledge and Attitude of Pediatricians and Family Physicians Regarding Pediatric Dentistry in Patna

Abhishek Anand<sup>1</sup>, Swati Sharma<sup>2</sup>, V K Prajapati<sup>3</sup>, Aditi Singh Tanwar<sup>4</sup>

<sup>1</sup>Consultant, Department of Pedodontics and Preventive Dentistry, Buddha Dental College, Patna, Bihar, India, <sup>2</sup>Lecturer, Department of Pedodontics and Preventive Dentistry, Rajendra Institute of Medical Sciences, Ranchi, Jharkhand, India, <sup>3</sup>Professor and HOD, Department of Oral and Maxillofacial Surgery, Rajendra Institute of Medical Sciences, Ranchi, Jharkhand, India, <sup>4</sup>Postgraduate trainee, Department of Pedodontics and Preventive Dentistry, Buddha Institute of Dental Sciences and Hospital, Patna, Bihar, India

## Abstract

**Introduction:** The study was aimed to assess the knowledge and attitude of the pediatricians and family physicians from Patna regarding pediatric dentistry and suggest certain methodologies in improving the oral health of children.

**Materials and Methods:** This survey was done among 80 pediatricians and 80 family physicians of Patna with complete, anonymous, self-administered questionnaire, personally handed over to them and collected after 2 days. The questionnaire comprises individual details, approach toward pediatric dentistry, knowledge level and the training on oral health received.

**Results:** Pediatricians and family physicians were less aware of the first dental visit including early childhood caries. Both the groups acknowledge the importance of pediatric dentistry. Literature regarding dental subjects in medical journals, participation in dental education programs, and interactions with dental professionals would be worthwhile to improve pediatricians' and family physicians knowledge and practice.

**Conclusion:** This survey indicates that pediatricians and family physicians overwhelmingly believe that they have an important role to play in the promotion of oral health. Dental training should be incorporated in medical schools and recognition of pediatric dentistry by providing a referral to needy patients.

**Key words:** Knowledge, Oral preventive care, Pediatric dentistry

## INTRODUCTION

Pediatric dentistry is a branch of dentistry that is concerned with the dental care and treatment of children. The objective of pediatric dentistry is:

1. To develop a positive attitude and behavior toward oral health.
2. Implement the principles of preventive dentistry from birth.
3. Parental guidance and counseling regarding different facets of preventive dentistry and treatment modalities.

Access to dental care and unmet dental health needs are serious, unaddressed problems of our society. The factor which mainly affects the preventive dentistry performance is the lack of knowledge and function of the pediatricians and family physicians. The quality of preventive health care and the future oral health is determined by the first dental visit of the child. The recommended age for the first dental visit is by 12 months of age.<sup>1,2</sup>

Children first visit usually takes place at pediatricians or the physician's clinics. They can assess risks for dental problems and counsel parents and their children about the prevention of the dental disease. They can provide screening services for early detection of dental problems, provide advice about the need to seek dental care, and refer those who are in need. There is a need for coordination of services between medical and dental team so that the appropriate health-care professionals can provide appropriate services at the appropriate ages.

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**Corresponding Author:** Dr. Abhishek Anand, Maharaja Kameshwar Complex, Flat No. 502B, Frazer Road, Patna - 800 001, Bihar, India. Phone: +91-8084509217. E-mail: dr.abhishekanand@gmail.com

This study was conducted to gather the data on the level of knowledge of pediatric dentistry, the importance of the first dental visit and referrals to a specialist for dental care.

## MATERIALS AND METHODS

This survey was done among the pediatricians and family physicians of Patna with complete, anonymous, self-administered questionnaire, personally handed over to them and collected after 2 days. The list of pediatricians and family physicians were obtained from Indian Medical Association, Patna. The questionnaire was prepared based on studies done by Yahya and Solmaz,<sup>3</sup> Di Giuseppe *et al.*,<sup>4</sup> dela Cruz *et al.*,<sup>5</sup> and Prakash *et al.*<sup>6</sup>

The questions were evaluated through choosing one of the options completely, yes or no. The questionnaires were having four sections:

1. Individual details including: Name, age, sex, and medical background.
2. The approach of the practitioner toward pediatric dentistry and factors affecting it.
3. The knowledge level of the practice of pediatric dentistry in relation to age at which care should be started, maternal considerations, preventive methods and various common treatment methods.
4. Training on oral health received by the practitioner was recorded and willingness to receive training.

## RESULTS

A total of 160 questionnaires (80 - pediatricians, 80 - family physician) were distributed among the health-care professionals and a total of 160 questionnaires were returned completed, giving a response rate of 100%. The resulted were tabulated in four sections and discussed.

## DISCUSSION

The attitude of pediatricians and family physicians showed that more than 90% of pediatricians and around 60% of physicians knew the existence of the specialty and the importance of the primary dentition and examining them (Table 1). The findings are in agreement with showing more number of pediatricians than general physicians, knowing about the specialty and importance of the primary dentition.<sup>6</sup>

The survey revealed that around 60% of the pediatrician and around 80% of the physicians felt that the parents pose a barrier in the referral and importance of primary dentition. Studies on the relationship between parental

attitude and its influence on the referral of patients were not available, but age of the patient as an influencing factor for referral by pediatricians showed that practice that had infants or toddlers in the practice had lesser referral percentage.<sup>5</sup>

The knowledge and understanding of the health care providers showed that nearly 70% of the pediatricians and around 30% of the family physicians could relate the importance of breastfeeding and oral health (Table 2). During breastfeeding, the infants' oral muscles are exercised strenuously in suckling, an important influence on the thrust and growth of the mandible, in addition to imparting maternal immunological components. Appropriate, health promoting practices, such as breastfeeding, should be encouraged by health-care professionals.<sup>7</sup> Most pediatricians and family physicians who participated in this study referred patients to dentists only when there was an explicit dental complaint. This indicated that both the health professionals may not be aware of American Association of Pediatric Dentistry (AAPD) guideline, endorsed by the AAP, which states that the first examination is recommended at the time of the eruption of the first tooth and no later than 12 months of age.<sup>8,9</sup>

In this study both groups with respect to preventive care and knowledge of early childhood caries (ECC) with <40% of family physicians being aware of the same. Similar Indian studies in showed that more than 90% of the pediatricians having knowledge of the same.<sup>10</sup> Pediatricians were better informed than family physicians in the areas of general dental knowledge and prevention counseling related to oral health.<sup>11</sup> This could be the reason why this study revealed a low percentage of family physicians having knowledge of ECC.

Pediatric dentistry as a specialty that provided early solutions to predictable orthodontic problems and its early role in cleft lip and palate as recognized by 50-60% of the pediatricians and around 50% of the family physicians. There are specific needs with regard to the child's oral development that can be identified in different stages of development. The dentist forms an important role in addressing the parent's concern of the aesthetics, early management involving preparing for surgery, management of pain, sepsis and when necessary dental extraction.<sup>12</sup>

The knowledge of the effect of systemic disease on oral health had a higher response by around 55% of pediatricians and only 30% of the family physicians. Oral changes such as involvement of the temporomandibular joint and asymmetry of the mandible are seen in patients diagnosed with juvenile idiopathic diabetes<sup>13</sup> and Type I diabetes mellitus in children showed delayed

dental development after the age of 10 with increase in periodontal disease and higher incidence of caries in those with poor metabolic control.<sup>14</sup>

Pediatric dentists as trained professionals in handling handicapped children were acknowledged only by 47% of the pediatricians and only 29% of the family physicians. The importance of early referral to a pediatric dentist is necessary as the specialty involves patient control, caries preventive, and management under general anesthesia, special gingival care involving children, especially under anti-convulsion therapy, dental trauma protection and treatment were the approach is quiet different than that of normal children as the patient cooperation does not allow fixed replacement and finally early intervention orthodontics such as a well-timed extraction program to achieve a fairly acceptable occlusion.<sup>15</sup>

The third (Table 3) part of the questionnaire dealt with the knowledge level of the practitioners that only 25% of pediatricians and only 10% of general practitioners had

received training in oral health and more than 90% of the practitioners were willing to undergo training in oral health. The most common barrier to participation in oral health-related activities in their practices was a lack of training.<sup>15</sup> More than 85% of pediatricians and physicians are willing to receive oral health care training.

## CONCLUSION

Children first place of visit is the pediatricians or physician's clinic more often than the dentist, so pediatricians and physicians must be knowledgeable about dental caries, prevention of the disease, and interventions. This survey indicates that pediatricians and family physicians overwhelmingly believe that they have an important role to play in the promotion of oral health. Lack of familiarity with oral health issues makes it difficult for them to promote oral health, and this suggests the need for improvement in the curriculum and training materials and standards for preventive oral health care.

**Table 1: Evaluation of the knowledge of the specialty of pediatric dentistry, importance of the primary dentition and referral attitudes among pediatricians and family physicians**

Question	Pediatrician (%)		Family physician (%)	
	Yes	No	Yes	No
Existence of an exclusive specialty	78 (97.5)	2 (2.5)	50 (62.5)	30 (37.5)
Importance of primary teeth	75 (93.7)	5 (6.2)	55 (68.7)	25 (31.2)
Examining primary teeth	70 (87.5)	10 (12.5)	49 (61.2)	31 (38.7)
Importance of referral	62 (77.5)	18 (22.5)	53 (66.2)	27 (33.7)
Parent not preferring referral	49 (61.2)	31 (38.7)	71 (88.7)	9 (11.2)
Parent may feel primary teeth are not important	51 (63.7)	29 (36.2)	73 (91.2)	7 (8.75)

**Table 2: Evaluation of knowledge of preventive practices and pediatric dentist's role in early intervention and special health care needs among pediatricians and family physicians**

Question	Pediatrician (%)		Family physician (%)	
	Yes	No	Yes	No
Relation between breastfeeding and oral health	58 (72.5)	22 (27.5)	30 (37.5)	50 (62.50)
Age of first dental visit	35 (43.7)	45 (56.2)	15 (18.7)	65 (81.2)
Preventive care with regard to dental caries	28 (35)	52 (65)	17 (21.2)	63 (78.7)
Knowledge of early childhood caries	31 (38.7)	49 (61.2)	17 (21.2)	63 (78.7)
Early intervention to orthodontics	42 (52.5)	38 (47.5)	38 (47.5)	42 (52.5)
Management of cleft lip and palate	63 (78.7)	17 (21.2)	43 (53.7)	37 (46.2)
Systemic disease on oral health	45 (56.2)	35 (43.7)	31 (38.7)	49 (61.2)
Pediatric dentists are trained for handicapped children	38 (47.5)	42 (52.5)	16 (20)	64 (80)

**Table 3: Evaluation of the training received by the physicians and willingness to receive training among pediatricians and family physicians**

Question	Pediatrician (%)		Family physician (%)	
	Yes	No	Yes	No
Training on oral health care	20 (25)	60 (75)	8 (10)	72 (90)
Willingness to receive oral health care training	75 (93.7)	5 (6.25)	71 (88.7)	9 (11.25)

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